

### In the Claims

The status of claims in the case is as follows:

1        1.     [Currently amended] A collaboration space including a  
2        plurality of rooms in a hierarchical structure with access  
3        control list control on rooms and access control list  
4        control on forward pointers to child rooms, comprising:

5            a place comprising a plurality of rooms, ~~each room being a~~  
6            database subrooms, each subroom being an independent  
7            entity belonging to said place.

8            said place having a first data note including a  
9            directory of members of said place and

10           each subroom within said place having a data note  
11           associated therewith containing an access control list  
12           of members selected exclusively from said directory of  
13           members by a member of said place having manager or  
14           author authority with respect to said subroom for  
15           specifying users of said place authorized to access  
16           ~~said room~~ said subroom;

17           forward and reverse pointers for linking ~~said rooms~~ said

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18 subrooms, each said forward pointer to a child room  
19 including indicia identifying said child room, indicia  
20 specifying the address location of the database entity  
21 forming said child room, and a readers field for providing  
22 access control list control on said forward pointer;

23 said readers field being a members object for identifying  
24 those members of said subset of members of said place  
25 authorized to access said room a parent subroom that are  
26 also authorized to access a child subroom and for each  
27 member of said subset of members a level of authorization;  
28 and

29 a document readers field for a document containing data in  
30 said subroom being a members object for identifying a subset  
31 of members of said place authorized to access a subroom who  
32 are also authorized to access said document.

1 2. [Original] The collaboration space of claim 1, said levels  
2 of authorization including manager, author, and reader.

1 3. [Currently amended] A collaboration space, comprising:  
2 a place comprising a plurality of rooms in a hierarchical

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3 structure linked by forward and backward pointers;

4 a member directory for said place identifying users  
5 authorized to enter said place;

6 each said room comprising one or more pages, and for each  
7 said room a members object for identifying a subset of  
8 members of said place authorized to access said room and for  
9 each member a level of authorization, each member of said  
10 subset of members being a user authorized in said member  
11 directory to enter said place;

12 said rooms including a parent room and a child room, and  
13 said pointers comprising forward and backward pointers for  
14 enabling the security of each said room to be independently  
15 managed, said forward pointers including indicia identifying  
16 said child room, indicia specifying the address location of  
17 the database forming said child room, and a readers field  
18 for providing access control list control on said forward  
19 pointer, said readers field for identifying those members of  
20 said subset of members of said place authorized to access a  
parent room that are also authorized to access a child room.

1 4. [Previously presented] The collaboration space of claim 3,  
2 said readers field including an access authority for each reader  
3 authorized to enter said room selectively as manager, author or

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4 manager.

1 5. [Previously presented] The collaboration space of claim 3,  
2 each said forward pointer being a secure pointer by carrying the  
3 same level of security as the child room to which it points.

1 6. [Previously presented] The collaboration space of claim 5,  
2 each said forward pointer carrying in said readers field the same  
3 security as that of the subroom to which it points.

1 7. [Previously presented] The collaboration space of claim 6,  
2 further comprising a display for presenting to a specific user  
3 viewing a parent room a listing of its subrooms, said listing  
4 including for said specific user only those subrooms for which  
5 said readers field in said forward pointer includes an entry  
6 authorizing access by said specific user.

1 8. [Currently amended] ~~A database~~ An access control system for  
2 controlling user access to forms and documents a collaboration  
3 space organized in a hierarchical structure of parent rooms and  
4 child rooms containing said forms and documents , comprising:

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5 an access control list for specifying users who can are  
6 members of said collaboration space ~~or cannot access said~~  
7 ~~database;~~

8 for users authorized to access said database collaboration  
9 space, said access control list further specifying access  
10 levels and roles determining [[the]] specific actions said  
11 users are authorized to perform, said roles including  
12 reader, author, and manager;

13 a form selectively including a form access list;

14 ~~said database~~ a room in said collaboration space including  
15 ~~one or more documents~~ at least one document created from  
16 said form;

17 a forward pointers pointer linking said form to said  
18 ~~documents and reverse pointers linking said documents~~  
19 document and a reverse pointer linking said document back to  
20 said form;

21 said form access list identifying a subset of users who are  
22 members of said collaboration space who are authorized to  
23 read documents created from said form;

24 each said forward pointer to a document including indicia

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25 identifying said document, indicia specifying the address  
26 location of said document, and a readers field for providing  
27 access control list control on said forward pointer  
28 including a document access field selectively including for  
29 each user authorized to access said document indicia  
30 specifying whether said authorized user can read or modify  
31 said document; users identified in any said form access list  
32 for said form from which said document was created being  
33 included in said readers field;

34 entries in said readers field granting authorization to an  
35 individual user equal to or less than the authorization for  
36 said individual user in said access control list; and

37 entries in said authors field selectively granting  
38 authorization to a user authorized as an author in said  
39 access control list to edit a document which said author  
40 creates.

1 9. [Currently amended] A method for controlling access to rooms  
2 within a collaboration place, comprising the steps of:

3 maintaining for said collaboration place an access control  
4 list identifying those users authorized to enter said place;

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5 providing forward and reverse pointers linking said rooms in  
6 a hierarchical structure within said place, said forward  
7 pointers including indicia identifying a child room, indicia  
8 specifying the address location of the database forming said  
9 child room, and a readers field for providing access control  
10 list control on said forward pointer, said readers field  
11 exclusively specifying a subset of said users authorized to  
12 enter said place; and

13 displaying a parent room to a specific user, said parent  
14 room including a list of children rooms for which said  
15 readers fields on said forward pointers authorize said  
16 specific user access.

1 10. [Currently amended] A method for creating a child room  
2 within a collaboration place data base, comprising the steps of:

3 providing for said collaboration place data base a first  
4 access control list identifying users authorized to access  
5 said data base;

6 providing for said child room a back pointer to a parent  
7 room; and

8 providing at said parent room for said child room a forward

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9 pointer from said parent room to said child room, said  
10 pointer including indicia identifying said child room,  
11 indicia specifying the address location of the database  
12 forming said child room, and a readers access field listing  
13 a subset of users in said first access control list who are  
14 users authorized to access said child room for providing a  
15 second access control list specific to said forward pointer;  
  
16 initially including in said readers access field for a child  
17 room created from a form users identified in a form access  
18 list identifying users authorized to read rooms created from  
19 said form; and  
  
20 limiting reader access in said readers access field to said  
21 child room for a specific user to no more than the access  
22 granted said specific user in said first access control list

11. [Canceled]

12. [Canceled]

1 13. [Currently amended] A program storage device readable by a  
2 machine, tangibly embodying a program of instructions executable  
3 by a machine to perform method steps for controlling access to  
4 rooms within a collaboration place, said method steps comprising:

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5 maintaining for said collaboration place a first access  
6 control list identifying those users authorized to enter  
7 said place;

8 providing forward and reverse pointers linking said rooms  
9 within said place, said forward pointers including indicia  
10 identifying a child room, indicia specifying the address  
11 location of the database forming said child room, and a  
12 second access control list including a ~~having a~~ readers  
13 field specifying each user having manager, author, and  
14 reader access to said child room, said readers field  
15 exclusively specifying a subset of said users authorized to  
16 enter said place; and

17 displaying a parent room to a specific user, said parent  
18 room including a list of children rooms for which said  
19 readers fields on said forward pointers authorize said  
20 specific user access.

1 14. [Canceled]

1 15. [Currently amended] A computer program product ~~or computer~~  
2 ~~program element~~ for controlling access to rooms within a  
3 collaboration place ~~according to the steps of~~ comprising:

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4        a computer readable medium;

5        first program instructions for maintaining for said  
6        collaboration a first access control list identifying those  
7        users authorized to enter said place;

8        second program instructions for providing in a [[child]]  
9        parent room second access control list identifying a subset  
10       of those user authorized to enter said place who are also  
11       authorized to enter said [[child]] parent room with manager,  
12       author, or user access;

13       third program instructions for providing forward and reverse  
14       pointers linking said rooms parent room with a child room in  
15       a double-linked list within said place, said forward  
16       pointers having a readers field providing a third access  
17       control list on said forward pointer, said third access  
18       control list providing access to said child room equivalent  
19       for those members who are included in [[to]] said second  
20       access control list who are also authorized to access said  
21       child room;

22       fourth program instructions for displaying a parent room to  
23       a specific user, said parent room including on said forward  
24       pointers a list of children rooms for which said readers  
25       fields authorize said specific user access; and wherein

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26        said first, second, third, and fourth program instructions  
27        are recorded on said computer readable medium.

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